

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (currently amended) A method of communicating traffic in a network, wherein the network comprises a Network Node ([M]NN), a Router (MR) for forwarding traffic between the network and the Internet, and a Multicast Signalling Gateway (MSG) co-located with the Router (MR), the method comprising:

communicating traffic, from a source to a group (G) of nodes that includes the Network Node (NN), using at least one one or more-multicast protocol[[s]] ~~from a source to a group (G) of nodes, wherein the group (G) comprises the Network Node (MNN), the Router (MR), and the Multicast Signalling Gateway (MSG), wherein the Router (MR) forwards traffic between said network and an Internet, and wherein the Multicast Signalling Gateway (MSG) is co-located with said Router (MR); and~~

translating, by the Multicast Signalling Gateway (MSG) on an outgoing router interface, signalling messages of a multicast routing protocol (MRP) into messages of a group membership protocol (GMP).

2. (currently amended) A method as claimed in claim 1, wherein the Network Node (NN) is of communicating traffic in a mobile network, wherein the mobile network comprises a Mobile Network Node (MNN) operating in a mobile network and the router is, a Mobile Router (MR) for forwarding traffic between a the mobile network and the Internet., and a Multicast Signalling Gateway (MSG), the method comprising:

~~—communicating using one or more multicast protocols from a source to a group (G) of nodes, wherein the group (G) comprises the Mobile Network Node (MNN), the Mobile Router (MR), and the Multicast Signalling Gateway (MSG), wherein the Mobile Router (MR) forwards traffic between said Mobile Network and an Internet, and wherein the Multicast Signalling Gateway (MSG) is co-located with said Mobile Router (MR); and translating on an interface signalling messages of a multicast routing protocol (MRP) into messages of a group membership protocol (GMP).~~
3. (canceled)
4. (previously presented) A method as claimed in claim 1, wherein said Multicast Signalling Gateway (MSG) operating on said interface determines whether said signalling messages relate to the group join class ({JOIN}) or the group leave class ({LEAVE}) and translates the class into group membership protocol (GMP).
5. (original) A method as claimed in claim 4, wherein said determination of the class is made using a class table which provide the class as a function of the type of said signalling message.
6. (previously presented) A method as claimed in claim 1, wherein said Multicast Signalling Gateway (MSG) operating on said interface determines whether said signalling messages contain an identification of a target multicast Group (G) and translates the target multicast group identification into group membership protocol (GMP).

7. (original) A method as claimed in claim 6, wherein said Multicast Signalling Gateway (MSG) operating on said interface determines whether said signalling messages contain an address of a target multicast group source (S) and translates the target source address into group membership protocol (GMP).
8. (original) A method as claimed in claim 7, wherein said Multicast Signalling Gateway (MSG) maintains source lists that include, for each MSG-enabled interface, said identifications of groups (G) associated with their respective multicast group source addresses identified by said signalling messages.
9. (currently amended) A method as claimed in claim 8, wherein said Multicast Signalling Gateway (MSG) renews the GMP subscription for said group (G) in response to a change in ~~said respective source list~~ the list of said respective multicast group source addresses.
10. (previously presented) A method as claimed in claim 1, wherein said Multicast Signalling Gateway (MSG) renews the GMP subscription for groups and associated source lists maintained for said interface in response to a change of topological attachment point of said interface.
11. (previously presented) A method as claimed in claim 1, wherein multicast packets from a source external to said network to which said network is subscribed through the MSG-enabled interface are multicast-routed from said MSG-enabled interface within said network according to a local multicast forwarding table of said router (MR).
12. (currently amended) A method as claimed in claim 1, wherein said Multicast Signalling Gateway (MSG) uses a ~~“service interface”~~ service interface as provided by the GMP protocols to generate the GMP messages, and thus to enable and disable reception of packets sent to specific IP multicast addresses by specific sources.
13. (original) A method as claimed in claim 12, wherein said Multicast Signalling Gateway (MSG) aggregates sources for a given multicast group (G) and uses a single socket identifier (sid) to pass the whole aggregation.

14. (previously presented) A method as claimed in claim 12, wherein said Multicast Signalling Gateway (MSG) uses different socket identifiers (target_sid) for respective targets (source S, multicast group G) derived from said signalling messages.
15. (previously presented) A method as claimed in claim 1, wherein said Multicast Signalling Gateway (MSG) detects Multicast Routing Protocol (MRP) messages by monitoring packets sent over the MSG-enabled interface.
16. (previously presented) A method as claimed in claim 1, wherein said Multicast Signalling Gateway (MSG) is embedded within an extension of a multicast routing protocol (MRP) implementation.
17. (previously presented) A method as claimed in claim 1, wherein said Multicast Signalling Gateway (MSG) translates multicast packets together with unicast source addresses and multicast destination addresses of multicast packets between IPv4 and IPv6 protocols.
18. (previously presented) A method as claimed in claim 1, wherein said Multicast Signalling Gateway (MSG) translates IPv4 MRP messages into IPv4 GMP messages (that is IGMP messages).
19. (previously presented) A method as claimed in claim 1, wherein said Multicast Signalling Gateway (MSG) translates IPv6 MRP messages into IPv6 GMP messages (that is MLD messages).
20. (previously presented) A method as claimed in claim 1, wherein said Multicast Signalling Gateway (MSG) translates IPv4 MRP messages into IPv6 GMP messages and enables IPv4 nodes to receive multicast packets from IPv6 multicast groups and sources.
21. (previously presented) A method as claimed in claim 1, wherein said Multicast Signalling Gateway (MSG) translates IPv6 MRP messages into IPv4 GMP messages and enables IPv6 nodes to receive multicast packets from IPv4 multicast groups and sources.
22. (canceled)